**Kyungrin Noh**

*Data Scientist, Global Business Services, IBM Korea*

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| **Contact**    +82-10-4106-8829  [nohfly@gmail.com](mailto:nohfly@gmail.com)    #105-103, 50, Seongbukro 8gil, Seongbukgu, Seoul, South Korea (02834)    **Skills**  *Development skills*   * Machine Learning * Optimization * Text Analysis * Server Setup/Mgmt.   *Development tools*   * Python * Java * SQL * Django * Shell Scripts   *Project skills*   * Scheduling * Management * Presentation     **Languages**   * Korean (Native) * English (Fluent) | Currently working as data scientist/consultant in Global Business Services, IBM Korea for 4+ years. Main work includes, but is not limited to, machine learning/optimization model development, analytics server development in Amazon Web Services, data analysis in various industries, and project management.  **Work Experience**   |  |  | | --- | --- | | *2017 - Now* | **Global Business Services, IBM Korea**  *Data Scientist / Senior Consultant*   * **V-automotive group. Data Strategy Consulting** *– Nov. 21 / Jan. 22*   *Project Leader / Lead Data Consultant*   * Analyzed data quality, ownership, metadata, and architecture of the enterprise, to suggest proper data governance framework and sroadmap. * **V-service. Cognitive Workforce Management** *– Jun. 21 - Sep. 21*   *Project Leader / Lead Data Scientist*   * Developed a python model to measure employee’s fitness to open positions in business sites. * Developed Django application server and Oracle DB instance in AWS for REST API service of the fitness measure model. * Implemented word embedding machine learning module, *fastText*, to compare required skills with employee’s career. * **A-hospital. Automated Nurse Scheduling** *– Oct. 20 - Mar. 21*   *Project Leader / Lead Data Scientist*   * Developed a *Genetic Algorithm* model to solve a NP-hard Nurse Scheduling Problem. * To enable tight scheduling, rule-based fitness function and sequential optimization steps were introduced. * PyPy3 interpreter and Multiprocessing were used to make the model converge fast enough for daily 100+ user access. * **A-hospital. Automated Bed Allocation** *– Feb. 20 - May. 20*   *Project Leader / Lead Data Scientist*   * Developed a python model to automatically allocate beds to inpatients based on their registration and medical conditions. * Implemented the *Genetic Algorithm* to follow necessary allocation standards and produce the most optimized solution.   [Press release *(*[*English*](https://www.ibm.com/case-studies/asan-medical-center-automation) */* [*Korean*](http://www.amc.seoul.kr/asan/information/journal/journalDetail.do?journalId=12445)*)*]   * **H-insurance. AI Claim Processing** *– Dec. 18 - Mar. 19*   *Data Consultant*   * Supported development of the automated insurance claim processing model, using the machine learning module of the IBM Watson solution. * **S-financial group. AI Market Forecasting** *– Jan. 18 - Sep. 18*   *NLP Developer*   * In charge of the IBM Watson solution implementation. * Performed *Named-Entity Recognition* from 20+ years of news/ blog/report data, to utilize text data in market forecasting.   [Press release *(*[*English*](https://www.businesskorea.co.kr/news/articleView.html?idxno=35662) */* [*Korean*](http://www.shinhangroup.com/kr/pr_center/pr_center_content.jsp?seq=7484)*)*] | | *2017* | **Bio-Synergy Research Center, KAIST**  *Research Associate*   * Conducted in silico research on drug candidates from natural products and their effects in human metabolic pathways. |   **Education**   |  |  | | --- | --- | | *2015 - 2017* | **Bio-Information System Laboratory, KAIST**  *Master of Science*   * **Major:** Bioinformatics * Researched on drug discovery from natural products based on their similarity to human metabolites. Main activities include machine learning model development, network analysis on metabolic pathways, and molecular similarity calculation.   [Graduation thesis - [Finding pharmacological effects of human metabolites and their similar natural products](http://hdl.handle.net/10203/242979)] | | *2009 - 2015* | **Department of Biological Sciences, KAIST**  *Bachelor of Science*   * **Major:** Biological Sciences * With the curriculum mainly focused on Genetics, Biochemistry, and Molecular Biology, conducted individual research on targeted anti-tumor drug delivery.   [Graduation thesis - [Anti-tumor drug delivery via targeted yeast vacuole system](https://nohfly.github.io/resume/BachelorThesis_KyungrinNoh.pdf)] | | *2007 - 2009* | **Hankuk Academy of Foreign Studies, Yongin, Korea** | | *2006 - 2007* | **Calera High School, Alabama, USA** |   **Publications**   * K Noh & S Yoo, D Lee. 2018. **A systematic approach to identify therapeutic effects of natural products based on human metabolite information.** *BMC Bioinformatics, 19.* <https://doi.org/10.1186/s12859-018-2196-0>. * S Yoo, K Noh, M Shin, J Park, KH Lee, H Nam, D Lee. 2018. **In silico profiling of systemic effects of drugs to predict unexpected interactions.** *Scientific Reports, 8.* <https://doi.org/10.1038/s41598-018-19614-5>. * S Yoo, S Ha, M Shin, K Noh, H Nam, D Lee. 2018. **A data-driven approach for identifying medicinal combinations of natural products.** *IEEE Access, 6.* <https://doi.org/10.1109/ACCESS.2018.2874089>. * M Shin, S Yoo, S Ha, K Noh, D Lee. 2015. **Identifying Potential Bioactive Compounds of Natural Products by Combining ADMET Prediction Methods.** *Proceedings of the ACM Ninth International Workshop on Data and Text Mining in Biomedical Informatics.* <https://doi.org/10.1145/2811163.2811168>. * S Ha, K Noh, M Shin, S Yoo, J Choi, H Nam, D Lee. 2015. **Identifying multi-component drug candidates in natural products via association rule mining.** *Chinese Journal of Pharmacology and Toxicology, 1.* * S Yoo, J Choi, M Shin, S Ha, K Noh, H Nam, D Lee. 2015. **Integrative database for multi-compound drug discovery in complementary medicine.** *Chinese Journal of Pharmacology and Toxicology, 1.*   **Achievements**   |  |  | | --- | --- | | *Oct. 2020* | **Lecturing at Chonnam National Univ.**   * Lectured on analytics project management in business fields. | | *Jul. 2020* | **Lecturing at IBM P-TECH School**   * Lectured on career path of data analyst/scientist. | | *2009 - 2011* | **Interpreter at ROK-US Combined Forces Command**   * Received Army Commendation Medal from US division chief. | |